

Amendments to the Claims:

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 45. (Canceled)

46. (Currently Amended) ~~The~~ A method of claim 45 for identifying a compound that modulates the ability of fungal tRNA splicing endonuclease to produce mature tRNA, wherein the method comprises comprising:

- (a) contacting a compound or a member of a library of compounds with a fungal cell containing that contains the fungal tRNA splicing endonuclease and the expresses a full-length protein encoded by the coding region of a reporter gene of a nucleic acid substrate, wherein the nucleic acid substrate comprises the coding region of a reporter gene and a tRNA intron in a mature domain of a precursor tRNA, and wherein the tRNA intron is contained within the nucleic acid substrate such that the mRNA transcribed from the coding region of the reporter gene is out of frame; and
- (b) detecting the amount of substrate cleaved by detecting the expression of the full-length protein expressed reporter gene, wherein a compound that modulates fungal tRNA splicing endonuclease activity is identified if an alteration in the amount expression of the reporter gene of the full-length protein expressed in the presence of a compound is altered relative to the expression of the reporter gene amount of the full-length protein expressed in the absence of the compound or in the presence of a negative control indicates that the compound modulates the ability of fungal tRNA splicing endonuclease to produce mature tRNA.

47. (Canceled)

48. (Currently Amended) ~~The method of claim 46 or 47, wherein a decrease in the amount of the full-length protein expressed compound that reduces fungal tRNA splicing endonuclease activity is identified if the expression of the protein encoded by the reporter gene is decreased in the presence of the compound relative to the expression amount of the full-length protein expressed in the absence of the compound or the presence of a negative control indicates that the compound reduces the ability of fungal tRNA splicing endonuclease to produce mature tRNA.~~

49. (Currently Amended) The method of claim 46 ~~or 47~~, wherein ~~a compound that increases fungal tRNA splicing endonuclease activity is identified if the expression of the protein~~ an increase in the amount of the full-length protein expressed encoded by the reporter gene is increased in the presence of the compound relative to the expression amount of the full-length protein expressed in the absence of the compound or the presence of a negative control indicates that the compound increases the ability of fungal tRNA splicing endonuclease to produce mature tRNA.

50. – 61. (Canceled)

62. (Currently Amended) The method of claim ~~45~~ 46 or 48, wherein the reporter gene encodes at least one ~~member of the group consisting of the following:~~ firefly luciferase, renilla luciferase, click beetle luciferase, green fluorescent protein, yellow fluorescent protein, red fluorescent protein, cyan fluorescent protein, blue fluorescent protein, beta-galactosidase, beta-glucoronidase, beta-lactamase, chloramphenicol acetyltransferase, ~~and or~~ alkaline phosphatase.

63. (Currently Amended) The method of claim 46, ~~53 or 59~~ or 48, wherein the fungal cell is a yeast cell.

64. (Currently Amended) The method of claim 63, wherein the yeast cell is ~~selected from the group consisting of a~~ *Saccharomyces cerevisiae* cell, a *Schizosaccharomyces pombe* cell, a *Pichia pastoris* cell, ~~and or~~ a *Hansenula polymorpha* cell.

65. – 82. (Canceled)

83. (Currently Amended) The method of claim ~~42 or 43~~ 46 or 48, wherein the method further comprises assessing the specificity of the compound for modulating fungal tRNA splicing endonuclease relative to animalia tRNA splicing endonuclease, wherein such assessment comprises contacting the compound with an animalia tRNA splicing endonuclease and the substrate, and detecting the amount of substrate cleaved by the animalia tRNA splicing endonuclease, wherein the compound is specific for fungal tRNA splicing endonuclease if the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the presence of the compound is not altered relative to the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the absence of the compound or the presence of a negative control.

84. (Currently Amended) The method of claim ~~48~~ 49, wherein the method further comprises assessing the specificity of the compound for modulating fungal tRNA splicing endonuclease relative to animalia tRNA splicing endonuclease, wherein such assessment comprises contacting the compound with an animalia tRNA splicing endonuclease and the substrate, and detecting the amount of substrate cleaved by the animalia tRNA splicing endonuclease, wherein the compound is specific for fungal tRNA splicing endonuclease if the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the presence of the compound is not altered relative to the amount of substrate cleaved by the animalia tRNA splicing endonuclease in the absence of the compound or the presence of a negative control.

85. – 89. (Canceled)

90. (New) The method of claim 49, wherein the reporter gene encodes at least one of the following: firefly luciferase, renilla luciferase, click beetle luciferase, green fluorescent protein, yellow fluorescent protein, red fluorescent protein, cyan fluorescent protein, blue fluorescent protein, beta-galactosidase, beta-glucoronidase, beta-lactamase, chloramphenicol acetyltransferase, or alkaline phosphatase.

91. (New) The method of claim 49, wherein the fungal cell is a yeast cell.

92. (New) The method of claim 91, wherein the yeast cell is a *Saccharomyces cerevisiae* cell, a *Schizosaccharomyces pombe* cell, a *Pichia pastoris* cell, or a *Hansenula polymorpha* cell.

93. (New) The method of claim 46, 48 or 49, wherein the tRNA is in the 3' untranslated region.

94. (New) The method of claim 46, 48 or 49, wherein the tRNA is in the 5' untranslated region.

95. (New) The method of claim 46, 48 or 49, wherein the tRNA is in the coding region of the reporter gene.